

Final NPDES General Permit for New and Existing Sources and New Dischargers in the Offshore Subcategory of the Oil and Gas Extraction Category for the Western Portion of the Outer Continental Shelf of the Gulf of Mexico (GMG290000) and Notice of a Proposed Modification to that Permit.

AGENCY: Environmental Protection Agency

ACTION: Notice of Final NPDES General Permit and Proposed Modification. (April 19, 1999)

SUMMARY: EPA Region 6 today issues, in part, the National Pollutant Discharge Elimination System (NPDES) general permit for the Western Portion of the Outer Continental Shelf of the Gulf of Mexico (No. GMG290000) for discharges from new sources, existing sources, and new dischargers in the Offshore Subcategory of the Oil and Gas Extraction Point Source Category (40 CFR Part 435, Subpart A). The existing permit published in the Federal Register, at 63 FR 58722 on November 2, 1998, authorizes discharges from exploration, development, and production facilities located in and discharging to Federal waters of the Gulf of Mexico seaward of the outer boundary of the territorial seas offshore off Louisiana and Texas. Today's action adds the authorization to discharge produced water to that permit.

A modification to the permit is also proposed in this Federal Register Notice which will authorize the discharge of drill cuttings generated using non-aqueous based drilling fluids. EPA is also considering authorizing the new discharge of chemically treated seawater or freshwater which has

been used to hydrostatically test existing pipelines and would like to solicit information on authorizing that new discharge under the permit. The public comment period for the drill cuttings modification and consideration of the new discharges of hydrostatic test water from existing pipelines will close [insert date sixty days after the Federal Register Publication Date].

Unchanged terms of the existing permit will not be reopened and shall remain effective.

FOR FURTHER INFORMATION CONTACT: Ms. Wilma Turner, EPA Region 6, 1445

Ross Avenue, Dallas, Texas 75202, Telephone: (214) 665 7516, or via EMAIL to the following

address: turner.wilma@epa.gov

SUPPLEMENTAL INFORMATION:

Regulated Entities. Entities potentially regulated by this action are those which operate offshore oil and gas extraction facilities located in the Outer Continental Shelf Offshore of Louisiana and Texas.

<u>Category</u>	<u>Examples of regulated entities</u>
Industry	Offshore Oil and Gas Extraction Platforms

This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your [facility, company, business, organization, etc.] is regulated by this action, you should carefully examine the applicability criteria in Part I. Section A.1. of the general permit. If

you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding "FOR FURTHER INFORMATION CONTACT" section.

Pursuant to section 402 of the Clean Water Act (CWA), 33 U.S.C. section 1342, EPA proposed and solicited comments on NPDES general permit GMG290000 at 63 FR 2238 (January 14, 1998). Notice of this proposed permit was also published in the New Orleans Times Picayune on January 24, 1998. The comment period closed on March 16, 1998.

Region 6 received comments from the Offshore Operators Committee, American Petroleum Institute, Willie R. Taylor - United States Department of Interior, Shell Offshore, Inc., BP Exploration, Inc., and Exxon Company, U.S.A.

EPA Region 6 has considered all comments received. In response to those comments, the final decision to authorize the discharge of produced water was postponed. The remainder of the permit was reissued on November 2, 1998 and authorized all other discharges which were proposed. The Region has since responded to all issues raised regarding the proposed permit's limitations and monitoring requirements for produced water and today issues that remaining portion of the permit.

The comments which delayed issuance of the produced water portion of the permit related to the dilution model EPA used to calculate the produced water toxicity limitations. EPA conducted a thorough review of the CORMIX model in response to those comments. As a result of that

review it was found that CORMIX, version 3.20 calculates critical dilutions which are reasonably representative of produced water discharges. EPA also determined that several changes in the ambient conditions used as model input were appropriate and would result in more accurate results. The proposed permit's critical dilution tables were recalculated for this final permit and incorporated those changes in ambient conditions.

CORMIX, version 3.20 was also used to calculate the toxicity limitations for the newly authorized discharges of freshwater and seawater which have been chemically treated. Those discharges were authorized by the recently issued permit at the request of the Offshore Operators Committee, even though unanswered questions remained concerning the accuracy of the CORMIX model. In response to that request by the Offshore Operators Committee, EPA agreed to revise the toxicity limitations if changes were deemed appropriate after reexamination of the CORMIX model. See 63 FR at 58722, published on November 2, 1998. Based on that review, EPA has determined that changes in the input parameters for CORMIX are appropriate and has revised the associated limits accordingly.

PROPOSED PERMIT MODIFICATION:

At this time, EPA is also proposing to modify the permit to authorize the discharges of drill cuttings generated using non-aqueous based drilling fluids. This proposal corresponds to a recent effluent limitations guidelines proposal for this new discharge (see 64 FR 5487, February 3, 1999). In response to its performance needs and regulatory requirements, the oil and gas extraction industry has developed new synthetic and other non-aqueous based drilling fluids,

hereafter referred to as non-aqueous based drilling fluids. The new drilling fluids are used in cases such as deep water or directional drilling, where use of water based fluids is not practical and traditionally oil based drilling fluids would have been used.

Several of the existing permit's limitations and prohibitions are proposed to apply to these new drill cuttings discharges. Cadmium and mercury in stock barite are proposed to be limited to 3mg/kg and 1 mg/kg respectively. The discharge of free oil as measured with the static sheen test is proposed to be prohibited. Also, the proposed permit's discharge prohibitions of cuttings generated using: oil-based drilling fluids, oil contaminated drilling fluids, drilling fluids which contain diesel oil, and mineral oil as a base are proposed to apply to the new category of cuttings generated using non-aqueous based drilling fluids.

Based on the proposed effluent limitations guidelines sediment toxicity, polynuclear aromatic hydrocarbons, biodegradation, formation oil, and percent of drilling fluids retained on cuttings are proposed to be limited for cuttings generated using non-aqueous based drilling fluids. In addition, seafloor monitoring is proposed to be required to address Ocean Discharge Criteria requirements of section 403(c) of the Clean Water Act. The seafloor sampling will be conducted at leases where cuttings generated using non-aqueous based drilling fluids are discharged. The intent of the monitoring is to learn the extent of the effects of these drill cuttings and the rate of recovery of the effected biological communities.

Additionally, the Agency is considering authorizing the discharge of seawater and freshwater

which has been used to hydrostatically test existing pipelines. The permit presently authorizes the discharges of seawater and freshwater which has been used to hydrostatically test new pipelines. Those discharges are included in the list of miscellaneous discharges of freshwater and seawater which have been chemically treated and are limited for: the concentration of treatment chemicals, free oil, and toxicity. EPA solicits information on the appropriateness of those limits and monitoring requirements for the discharge being considered.

A copy of the proposed permit language or a detailed fact sheet for the modification (neither of which are included in this Federal Register notice) may be obtained from Ms. Turner at the address or telephone number listed above. That information may also be obtained on the Internet at the following address: <http://www.epa.gov/earth1r6/6wq/6wq.htm>. Additional information regarding the proposed limitations and monitoring requirements for the proposed drill cuttings discharges can also be found in the Federal Register notice for the proposed effluent limitations guidelines published at 64 FR 5487.

OTHER LEGAL REQUIREMENTS:

Ocean Discharge Criteria Evaluation. At 63 FR 2238 EPA Region 6 determined that discharges in compliance with the proposed general permit for the Western Gulf of Mexico Outer Continental Shelf general permit (GMG290000) would not cause unreasonable degradation of the marine environment. No comments have been received which disagree with that determination.

Coastal Zone Management Act. The Region found the proposed general permit consistent with

approved Coastal Zone Management Plans for Louisiana and Texas and submitted those determinations to the appropriate State agencies for certification. Such certification was received from the Coastal Management Division of the Louisiana Department of Natural Resources. However, the Texas General Land Office informed EPA that this action is not subject to their consistency review, since the area covered under the permit is outside the Texas Coastal Management Program's boundary.

Marine Protection, Research, and Sanctuaries Act. The Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972 regulates the dumping of all types of materials into ocean waters and establishes a permit program for ocean dumping. In addition the MPRSA establishes Marine Sanctuaries Program, implemented by the National Oceanographic and Atmospheric Administration (NOAA), which requires NOAA to designate ocean waters as marine sanctuaries for the purpose of preserving or restoring their conservation, recreational, ecological or aesthetic values. Pursuant to the Marine Protection and Sanctuaries Act, the National Oceanographic and Atmospheric Administration has designated the Flower Garden Banks, an area within the coverage of the OCS general permit, a marine sanctuary. The OCS general permit prohibits discharges in areas of biological concern, including marine sanctuaries. No change adopted today affects that prohibition.

Endangered Species Act. As explained at 63 FR 2238, EPA has found that issuance of the General Permit for the Outer Continental for the Western Gulf of Mexico will not adversely affect any listed threatened or endangered species or designated critical habitat and requested written

concurrence on that determination from the National Marine Fisheries Service. The National Marine Fisheries Service provided such concurrence on the proposed NPDES General Permit for the Western Portion of the Outer Continental Shelf of the Gulf of Mexico.

State Water Quality Standards and State Certification. Because state waters are not included in the area covered by this NPDES general permit, no state waters are affected by the discharges it authorizes. Thus, the state water quality certification provisions of CWA section 401 do not apply to this permit.

Executive Order 12866. The Office of Management and Budget (OMB) has exempted this action from the review requirements of Executive Order 12291 pursuant to Section 8(b) of that order. Guidance on Executive Order 12866 contain the same exemptions on OMB review as existed under Executive Order 12291. In fact, however, EPA prepared a regulatory impact analysis in connection with its promulgation of guidelines on which a number of the permit's provisions are based and submitted it to OMB for review. See 58 FR 12494.

Paperwork Reduction Act. The information collection required by this permit has been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq., in submission made for the NPDES permit program and assigned OMB control numbers 2040-0086 (NPDES permit application) and 2040-0004 (discharge monitoring reports).

Since this permit is very similar in reporting and application requirements and in discharges which are required to be monitored as the previous Western Gulf of Mexico Outer Continental Shelf (OCS) general permit (GMG290000) the paperwork burdens are expected to be nearly identical. When it issued the previous OCS general permit, EPA estimated it would take an affected facility three hours to prepare the request for coverage and 38 hours per year to prepare discharge monitoring reports. It is estimated that the time required to prepare the request for coverage and discharge monitoring reports for the reissued permit will be approximately the same.

Regulatory Flexibility Act. The Regulatory Flexibility Act, 5 U.S.C. 601 et seq, requires that EPA prepare a regulatory flexibility analysis for regulations that have a significant impact on a substantial number of small entities. As indicated below, the permit issued today is not a “rule” subject to the Regulatory Flexibility Act . EPA prepared a regulatory flexibility analysis, however, on the promulgation of the Offshore Subcategory guidelines on which many of the permit’s effluent limitations are based. That analysis shows that issuance of this permit will not have a significant impact on a substantial number of small entities.

Unfunded Mandates Reform Act. Section 201 of the Unfunded Mandates Reform Act (UMRA), P.L. 104-4, generally requires Federal agencies to assess the effects of their “regulatory actions” on State, local, and tribal governments and the private sector. As stated in the Federal Register notice for the proposed permit, this permit is not a rule which is subject to the requirements of the UMRA. The permit also would not uniquely affect small governments because compliance with the proposed permit conditions affects small governments in the same

manner as any other entities seeking coverage under the permit. Additionally, EPA does not expect small governments to operate facilities authorized to discharge by this permit. No comments were received which challenge EPA's interpretation of the Unfunded Mandates Reform Act, as it applies to this permit.

National Environmental Policy Act (NEPA). As stated in the Federal Register notice for the proposed permit (see 63 FR 2238, January 14, 1998) EPA determined that reissuance of this NPDES general permit will not result in any new impacts which were not subjected to NEPA analysis in either Mineral Management Service's EIS or the SEIS produced by EPA Region 6. All discharges authorized by this reissued permit were addressed in that NEPA Review. Thus EPA did not prepare a supplemental environmental impact statement for this action. No comments, on the proposed permit, were received which would suggest additional actions are required to meet the requirements of NEPA.

Authorization To Discharge Under
the National Pollutant Discharge Elimination System

In compliance with the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq. the "Act"), operators of lease blocks in the Oil and Gas Extraction Point Source Category which are located in Federal waters of the Western Portion of the Gulf of Mexico (defined as seaward of the outer boundary of the territorial seas off Louisiana and Texas) are authorized to discharge to the Western Portion of the Federal Waters of the Gulf of Mexico in accordance with

effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof. Also, operators of lease blocks located in the territorial seas of Louisiana and Texas are authorized to discharge produced water from wells located in those lease blocks to the Western Portion of the Federal Waters of the Gulf of Mexico in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

Operators of lease blocks located within the general permit area must submit written notification to the Regional Administrator that they intend to be covered (See Part I.A.2). Unless otherwise notified in writing by the Regional Administrator after submission of the notification, owners or operators requesting coverage are authorized to discharge under this general permit. Operators of lease blocks within the general permit area who fail to notify the Regional Administrator of intent to be covered by this general permit are not authorized under this general permit to discharge pollutants from those facilities. Operators who have previously submitted a written notification of intent to be covered by a subsequent permit, as required by the previous permit, need not submit an additional notification of intent to be covered.

Facilities which adversely affect properties listed or eligible for listing in the National Register of Historic Places are not authorized to discharge under this permit.

This permit shall become effective at Midnight Central Standard Time on [insert date ninety days after the publication date in Federal Register].

This permit and the authorization to discharge shall expire at midnight, Central Standard Time, November 3, 2003.

Signed this 9th day of April, 1999.

Jack V. Ferguson

Acting Director, Water Quality Protection Division

EPA Region 6

PART I. REQUIREMENTS FOR NPDES PERMITS

Section A. Permit Applicability and Coverage Conditions

1. Operations Covered

This permit establishes effluent limitations, prohibitions, reporting requirements, and other conditions on discharges from oil and gas facilities engaged in production, field exploration, developmental drilling, well completion, well treatment operations, and well workover and abandonment operations.

The permit coverage area consists of lease blocks located in and discharging to Federal

waters in the Gulf of Mexico seaward of the outer boundary of the territorial seas offshore of Louisiana and Texas and shall include lease blocks west of the western boundary of the outer continental shelf lease areas defined as: Mobile, Viosca Knoll (north part), Destin Dome, Desoto Canyon, Lloyd, and Henderson. In Texas, where the state has mineral rights to 3 leagues, some operators with state lease tracts are required to request coverage under this Federal NPDES general permit. In addition, permit coverage consists of produced water discharges to those Federal waters from lease blocks located in the territorial seas of Texas and Louisiana. This includes produced water from wells located in the area of coverage, which is sent on-shore for treatment and subsequently sent back to the Outer Continental Shelf to be discharged. This permit does not authorize discharges from facilities located in or discharging to the territorial seas of Louisiana or Texas or from facilities defined as "coastal", "onshore", or "stripper" (see 40 CFR Part 435, Subparts C, D, and E).

2. Notification Requirements

Written notification of intent to be covered including the legal name and address of the operator, the lease block number assigned by the Department of Interior or the state or, if none, the name commonly assigned to the lease area shall be submitted at least fourteen days prior to the commencement of discharge. If the lease block was previously covered by this or another permit, the operator shall also include the previous permit number in the notification. The notice of intent must also identify any facility which is a New Source and state the date on which the facility's protection from more stringent new source performance standards or technology based

limitations ends. That date is the soonest of: ten years from the date that construction is completed, ten years from the date the source begins to discharge process or non-construction related waste water, or the end of the period of depreciation or amortization of the facility for the purposes of section 167 or 169 (or both) of the Internal Revenue code of 1954.

Additionally, if an application for an individual permit for the activity was previously submitted to EPA Region 6, the notice of intent shall include the application/permit number of that application or the permit number of any individual NPDES permit issued by EPA Region 6 for this activity.

Permittees located in lease blocks that (a) are neither in nor adjacent to MMS-defined "no activity" areas, or (b) do not require live-bottom surveys are required only to submit a notice of intent to be covered by this general permit. Permittees who are located in lease blocks that are either in or adjacent to "no activity" areas or require live bottom surveys are required to submit both a notice of intent to be covered that specifies they are located in such a lease block, and in addition are required to submit a notice of commencement of operations.

Permittees located in lease blocks either in or immediately adjacent to MMS-defined "no activity" areas, shall be responsible for determining whether a controlled discharge rate is required. The maximum discharge rate for drilling fluids is determined by the distance from the facility to the "no activity" area boundary and the discharge rate equation provided in Part I.B.1.b. of this permit. The permittee shall report the distance from the permitted facility to the "no

activity" area boundary and the calculated maximum discharge rate to EPA with its notice of commencement of operations.

For permittees located in lease blocks that require live-bottom surveys, the final determination of the presence or absence of live-bottom communities, the distance of the facility from identified live-bottom areas, and the calculated maximum discharge rate shall be reported with the notice of commencement of operations.

All notifications of intent to be covered and any subsequent reports under this permit shall be sent to the following address:

Water Enforcement Branch (6EN-WC)
Region 6
U.S. Environmental Protection Agency
P.O. Box 50625.
Dallas, TX 75250

Operators who have previously submitted a written notification of intent to be covered by a subsequent permit, as required by the previous permit, need not submit an additional notification of intent to be covered.

3. Termination of Operations

Lease block operators shall notify the Regional Administrator within 60 days after the permanent termination of discharges from their facilities within the lease block.

Section B. Effluent Limitations and Monitoring Requirements

1. Drilling Fluids

The discharge of drilling fluids shall be limited and monitored by the permittee as specified in Table 3 of Appendix A and as below.

Special Note: The permit prohibitions and limitations that apply to drilling fluids, also apply to fluids that adhere to drill cuttings. Any permit condition that may apply to the drilling fluid discharges, therefore, also applies to cuttings discharges.

[Exception] The discharge rate limit for drilling fluids does not apply to drill cuttings.

a) Prohibitions

Oil-Based Drilling Fluids. The discharge of oil-based drilling fluids and inverse emulsion drilling fluids is prohibited.

Oil Contaminated Drilling Fluids. The discharge of drilling fluids which contain waste engine oil, cooling oil, gear oil or any lubricants which have been previously used for purposes other than borehole lubrication, is prohibited.

Diesel Oil. Drilling fluids to which any diesel oil has been added as a lubricant may not be discharged.

b) Limitations

Mineral Oil. Mineral oil may be used only as a carrier fluid (transporter fluid), lubricity additive, or pill.

Cadmium and Mercury in Barite. There shall be no discharge of drilling fluids to which barite has been added, if such barite contains mercury in excess of 1.0 mg/kg (dry weight) or cadmium in excess of 3.0 mg/kg (dry weight). The permittee shall analyze a representative sample of all stock barite used once, prior to drilling each well, and submit the results for total mercury and cadmium in the Discharge Monitoring Report (DMR).

If more than one well is being drilled at a site, new analyses are not required for subsequent wells, provided that no new supplies of barite have been received since the previous analysis. In this case, the results of the previous analysis should be used on the DMR.

Alternatively, the permittee may provide certification, as documented by the supplier(s), that the barite being used on the well will meet the above limits. The concentration of the mercury and cadmium in the barite shall be reported on the DMR as documented by the supplier.

Analyses shall be conducted by absorption spectrophotometry (see 40 CFR Part 136, flame and flameless AAS) and the results expressed in mg/kg (dry weight).

Toxicity. Discharged drilling fluids shall meet both a daily minimum and a monthly average minimum 96-hour LC50 of at least 30,000 ppm in a 9:1 seawater to drilling fluid suspended particulate phase (SPP) volumetric ratio using *Mysidopsis bahia*. Monitoring shall be performed at least once per month for both a daily minimum and the monthly average. In addition, an end-of-well sample is required for a daily minimum. The type of sample required is a grab sample, taken from beneath the shale shaker, or if there are no returns accross the shale shaker, the sample must be taken from a location that is characteristic of the overall mud system to be discharged. Permittees shall report pass or fail on the DMR using either the full toxicity test or the partial toxicity test as specified at 58 FR 12512; however, if the partial toxicity test shows a failure, all testing of future samples from that well shall be conducted using the full toxicity test method to determine the 96-hour LC50.

Free Oil. No free oil shall be discharged. Monitoring shall be performed using the static sheen method once per week when discharging. The number of days a sheen is observed must be recorded.

Discharge Rate. All facilities are subject to a maximum discharge rate of 1,000 barrels per hour.

For those facilities subject to the discharge rate limitation requirement because of their proximity to areas of biological concern, the discharge rate of drilling fluids shall be determined by the following equation:

$$R = 10^{[3 \text{ Log } (d/15) + T_t]}$$

Where:

R = discharge rate (bbl/hr)

d = distance (meters) from the boundary of a controlled discharge rate area

T_t = toxicity-based discharge rate term

$$= [\log (\text{LC50} \times 8 \times 10^{-6})] / 0.3657$$

Drilling fluids discharges (based on a mud toxicity of 30,000 ppm) equal to or less than 544 meters from areas of biological concern shall comply with the discharge rate obtained from the equation above. Drilling fluids discharges which are shunted to the bottom as required by MMS are not subject to this discharge rate control requirement.

All discharged drilling fluids, including those fluids adhering to cuttings must meet the limitations of this section except that discharge rate limitations do not apply before installation of the marine riser.

c) Monitoring Requirements

Drilling Fluids Inventory. The permittee shall maintain a precise chemical inventory of all constituents and their total volume or mass added downhole for each well.

2. Drill Cuttings

The discharge of drill cuttings shall be limited and monitored by the permittee as specified in Appendix A, Table 2 and as below.

a) Prohibitions

Cuttings from Oil Based Drilling Fluids. The discharge of cuttings that are generated while using an oil-based or invert emulsion mud is prohibited.

Cuttings from Oil Contaminated Drilling Fluids. The discharge of cuttings that are generated using drilling fluids which contain waste engine oil, cooling oil, gear oil or any lubricants which have been previously used for purposes other than borehole lubrication, is prohibited.

Cuttings Generated Using Drilling Fluids which Contain Diesel Oil. Drill cuttings generated using drilling fluids to which any diesel oil has been added as a lubricant may not be discharged.

Cuttings Generated Using Mineral Oil. The discharge of cuttings generated using drilling fluids which contain mineral oil is prohibited except when the mineral oil is used as a carrier fluid (transporter fluid), lubricity additive, or pill.

Cadmium and Mercury in Barite. Drill cuttings generated using drilling fluids to which barite has been added shall not be discharged if such barite contains mercury in excess of 1.0 mg/kg (dry weight) or cadmium in excess of 3.0 mg/kg (dry weight).

Toxicity. Drill cuttings generated using drilling fluids with a daily minimum or a monthly average minimum 96-hour LC50 of less than 30,000 ppm in a 9:1 seawater to drilling fluid suspended particulate phase (SPP) volumetric ratio using Mysidopsis bahia shall not be discharged.

b) Limitations

Free Oil. No free oil shall be discharged. Monitoring shall be performed using the static sheen test method once per week when discharging. The number of days a sheen is observed must be recorded.

3. Deck Drainage

a) Limitations

Free Oil. No free oil shall be discharged, as determined by the visual sheen method on

the surface of the receiving water. Monitoring shall be performed once per day when discharging, during conditions when an observation of a visual sheen on the surface of the receiving water is possible in the vicinity of the discharge, and the facility is manned. The number of days a sheen is observed must be recorded.

4. Produced Water

a) Limitations

Oil and Grease. Produced water discharges must meet both a daily maximum of 42 mg/l and a monthly average of 29 mg/l for oil and grease. The sample type shall be either grab, or a 24-hour composite which consists of the arithmetic average of the results of 4 grab samples taken over a 24-hour period. If only one sample is taken for any one month, it must meet both the daily and monthly limits. Samples shall be collected prior to the addition of any seawater to the produced water waste stream. The analytical method is that specified at 40 CFR Part 136 or the alternate method described in Part I.D.5 of this permit.

Toxicity. The 7-day average minimum and monthly average minimum No Observable Effect Concentration (NOEC) must be equal to or greater than the critical dilution concentration specified in Table 1 of this permit. Critical dilution shall be determined using Table 1 of this permit and is based on the discharge rate most recently reported on the discharge monitoring report, discharge pipe diameter, and water depth between the

discharge pipe and the bottom. Facilities which have not previously reported produced water flow on the discharge monitoring report shall use the highest monthly average flow measured during the previous twelve months for determining the critical dilution from Table 1 of this permit. The monthly average minimum NOEC value is defined as the arithmetic average of all 7-day average NOEC values determined during the month.

[Exception] Permittees wishing to increase mixing may use a horizontal diffuser, add seawater, or may install multiple discharge ports.

Permittees using a horizontal diffuser shall install the diffuser designed so that the 7-day average minimum and monthly average minimum No Observable Effect Concentration (NOEC) is equal to or greater than the critical dilution concentration as calculated using CORMIX2 version 3.20 or newer, with the following input conditions:

Density Gradient = $0.15 \sigma_t/m$

Ambient seawater density at diffuser depth = 1017 kg/m^3

Produced water density = 1070 kg/m^3

Current speed = 10 cm/sec.

Permittees shall submit a certification that the diffuser has been installed and state the critical dilution corresponding to the diffuser in the certification. The CORMIX2 model runs shall be retained by the permittee as part of its NPDES records.

Permittees discharging produced water at a rate greater than 75,000 bbl/day shall determine the critical dilution using CORMIX (version 3.20 or newer) with the input parameters shown above. Permittees shall retain the model run as a part of the NPDES records.

Permittees using vertically aligned multiple discharge ports shall provide vertical separation between ports which is consistent with Table 1-G of this permit. When multiple discharge ports are installed, the depth difference between the discharge port closest to the sea floor and the sea floor shall be the depth difference used to determine the critical dilution from Table 1 of this permit. The critical dilution value shall be based on the port flow rate (total flow rate divided by the number of discharge ports) and based on the diameter of the discharge port (or smallest discharge port if they are of different styles).

When seawater is added to produced water prior to discharge, the total produced water flow, including the added seawater, shall be used in determining the critical dilution from Table 1.

b) Monitoring Requirements

Flow. Once per month, an estimate of the flow (MGD) must be recorded.

Toxicity. The flow used to determine the frequency of toxicity testing shall be the flow most recently reported on the discharge monitoring report for the facility. Facilities which have not previously reported produced water flow on the discharge monitoring report shall use the highest monthly average flow measured during the past twelve months. The required frequency of testing shall be determined as follows:

<u>Discharge Rate</u>	<u>Toxicity Testing Frequency</u>
0 - 4,599 bbl/day	once per year
4,600 bbl/day and above	once per calendar quarter:

The calendar quarters are defined as the following periods: January 1 to March 31, April 1 to June 30, July 1 to September 30, and October 1 to December 31)

Toxicity testing requirements for new discharges shall become effective at the start of the first calendar quarter after discharge begins. Toxicity testing requirements shall become effective [Insert the first calendar quarter start date following the date of permit issuance].

Samples for monitoring produced water toxicity shall be collected after addition of any added substances, including seawater that is added prior to discharge, and before the flow is split for multiple discharge ports. Samples also shall be representative of produced water discharges when scale inhibitors, corrosion inhibitors, biocides, paraffin

inhibitors, well completion fluids, workover fluids, and/or well treatment fluids are used in operations.

If the permittee has been subject to quarterly testing and has been compliant with these toxicity limits for one full year (four consecutive quarters), the required testing frequency shall be reduced to once per year. If the permittee has been subject to annual testing and has been compliant for the first year, the required toxicity testing frequency shall remain at once per year even if the discharge rate subsequently exceeds 4,599 bbl/day. Also, if the permittee monitored produced water toxicity at the reduced frequency of once per year under the previous Outer Continental Shelf general permit, the required monitoring frequency shall remain at once per year as long as the discharge is compliant with the toxicity limits. See also Part I.D.3.d of this permit.

Visual Sheen The permittee shall monitor free oil using the visual sheen test method on the surface of the receiving water. Monitoring shall be performed once per day when discharging, during conditions when observation of a sheen on the surface of the receiving water is possible in the vicinity of the discharge, and when the facility is manned.

Oil and Grease A produced water sample shall be collected and analyzed for oil and grease when a sheen is observed in the vicinity of the produced water discharge. At a minimum a sample shall be collected and analyzed once per month.

5. Produced Sand

There shall be no discharge of produced sand.

6. Well Treatment Fluids, Completion Fluids, and Workover Fluids

a) Limitations

Free Oil. No free oil shall be discharged. Monitoring shall be performed using the static sheen test method once per day when discharging and the facility is manned. The number of days a sheen is observed must be recorded.

Oil and Grease. Well treatment, completion, and workover fluids must meet both a daily maximum of 42 mg/l and a monthly average of 29 mg/l limitation for oil and grease. The sample type may be either grab, or a 24-hour composite consisting of the arithmetic average of the results of 4 grab samples taken within the 24-hour period. If only one sample is taken for any one month, it must meet both the daily and monthly limits. The analytical method is that specified at 40 CFR Part 136 or the alternate method described in Part I.D.5 of this permit.

Priority Pollutants. For well treatment fluids, completion fluids, and workover fluids, the discharge of priority pollutants is prohibited except in trace amounts. Information on the specific chemical composition of any additives containing priority pollutants shall be

recorded.

[Note] If materials added downhole as well treatment, completion, or workover fluids contain no priority pollutants, the discharge is assumed not to contain priority pollutants except possibly in trace amounts.

b) Monitoring Requirements

This discharge shall be considered produced water for monitoring purposes when commingled with produced water.

7. Sanitary Waste (Facilities Continuously Manned by 10 or More Persons)

a) Prohibitions

Solids. No floating solids may be discharged to the receiving waters. An observation must be made once per day for floating solids. Observation must be made during daylight in the vicinity of sanitary waste outfalls following either the morning or midday meal and at a time during maximum estimated discharge. The number of days solids are observed must be recorded.

b) Limitations

Residual Chlorine. Total residual chlorine is a surrogate parameter for fecal coliform. Discharge of residual chlorine must meet a minimum of 1 mg/l and shall be maintained as

close to this concentration as possible. A grab sample must be taken once per month and the concentration recorded (approved method, Hach CN-66-DPD).

[Exception] Any facility which properly operates and maintains a marine sanitation device (MSD) that complies with pollution control standards and regulations under section 312 of the Act shall be deemed in compliance with permit limitations for sanitary waste. The MSD shall be tested yearly for proper operation and the test results maintained at the facility.

8. Sanitary Waste (Facilities Continuously Manned by 9 or Fewer Persons or Intermittently by Any Number)

a) Prohibitions

Solids. No floating solids may be discharged to the receiving waters. An observation must be made once per day for floating solids. Observation must be made during daylight in the vicinity of sanitary waste outfalls following either the morning or midday meal and at a time during maximum estimated discharge. The number of days solids are observed must be recorded.

[Exception] Any facility which properly operates and maintains a marine sanitation device (MSD) that complies with pollution control standards and regulations under section 312 of the Act shall be deemed to be in compliance with permit limitations for

sanitary waste. The MSD shall be tested yearly for proper operation and the test results maintained at the facility.

9. Domestic Waste

a) Prohibitions

Solids. No floating solids or foam shall be discharged.

b) Monitoring Requirements

An observation shall be made once per day during daylight in the vicinity of domestic waste outfalls following the morning or midday meal and at a time during maximum estimated discharge. The number of days solids are observed must be recorded.

10. Miscellaneous Discharges

Desalination Unit Discharge

Diatomaceous Earth Filter Media

Blowout Preventer Fluid

Uncontaminated Ballast Water

Uncontaminated Bilge Water

Mud, Cuttings, and Cement at the Seafloor

Uncontaminated Freshwater

Uncontaminated Seawater

Boiler Blowdown

Source Water and Sand

Excess Cement Slurry

a) Limitations

Free Oil. No free oil shall be discharged. Discharge is limited to those times that a visual sheen observation is possible unless the operator uses the static sheen method. Monitoring shall be performed using the visual sheen method on the surface of the receiving water once per week when discharging, or by use of the static sheen method at the operator's option. The number of days a sheen is observed must be recorded.

[Exceptions] Uncontaminated seawater, uncontaminated freshwater, source water and source sand, uncontaminated bilge water, and uncontaminated ballast water may be discharged from platforms that are on automatic purge systems without monitoring for free oil when the facilities are not manned. Additionally, discharges at the seafloor of: muds and cuttings prior to installation of the marine riser, cement, and blowout preventer fluid may be discharged without monitoring with the static sheen test when conditions make observation of a visual sheen on the surface of the receiving water impossible.

11. Miscellaneous Discharges of Seawater and Freshwater which have been chemically treated.

Excess seawater which permits the continuous operation of fire control and utility lift pumps

Excess seawater from pressure maintenance and secondary recovery projects

Water released during training of personnel in fire protection

Seawater used to pressure test new piping and new pipelines

Ballast water

Once Through Non-contact cooling water

Desalinization unit discharge

a) Limitations

Treatment Chemicals. The concentration of treatment chemicals in discharged seawater or freshwater shall not exceed the most stringent of the following three constraints:

- 1) the maximum concentrations and any other conditions specified in the EPA product registration labeling if the chemical is an EPA registered product
- 2) the maximum manufacturer's recommended concentration
- 3) 500 mg/l

Free Oil. No free oil shall be discharged. Discharge is limited to those times that a visible sheen observation is possible unless the operator uses the static sheen method.

Monitoring shall be performed using the visual sheen method on the surface of the

receiving water once per week when discharging, or by use of the static sheen method at the operator's option. The number of days a sheen is observed must be recorded.

Toxicity. The 48-hour minimum and monthly average minimum No Observable Effect Concentration (NOEC), or if specified the 7-day average minimum and monthly average minimum NOEC, must be equal to or greater than the critical dilution concentration specified in this permit in Table 2-A for seawater discharges and 2-B for freshwater discharges. Critical dilution shall be determined using Table 2 of this permit and is based on the discharge rate, discharge pipe diameter, and water depth between the discharge pipe and the bottom. The monthly average minimum NOEC value is defined as the arithmetic average of all 48-hour average NOEC (or 7-day average minimum NOEC) values determined during the month.

b) Monitoring Requirements

Flow. Once per month, an estimate of the flow (MGD) must be recorded.

Toxicity. The required frequency of testing for continuous discharges shall be determined as follows:

<u>Discharge Rate</u>	<u>Toxicity Testing Frequency</u>
0 - 499 bbl/day	once per year

500 - 4,599 bbl/day	once per quarter
4,600 bbl/day and above	once per month

Intermittent or batch discharges shall be monitored once per discharge but are required to be monitored no more frequently than the corresponding frequencies shown above for continuous discharges.

Samples shall be collected after addition of any added substances, including seawater that is added prior to discharge, and before the flow is split for multiple discharge ports. Samples also shall be representative of the discharge. Methods to increase dilution previously described for produced water in Part I.B.4.a also apply to seawater and freshwater discharges which have been chemically treated.

If the permittee has been compliant with this toxicity limit for one full year (12 consecutive months) for a continuous discharge of chemically treated seawater or freshwater, the required testing frequency shall be reduced to once per year for that discharge.

Section C. Other Discharge Limitations

1. Floating Solids or Visible Foam

There shall be no discharge of floating solids or visible foam from any source in other than trace amounts.

[Exception] For new sources, this limitation only applies to miscellaneous discharges and domestic waste discharges.

2. Halogenated Phenol Compounds

There shall be no discharge of halogenated phenol compounds as a part of any waste stream authorized in this permit.

3. Dispersants, Surfactants, and Detergents

The facility operator shall minimize the discharge of dispersants, surfactants and detergents except as necessary to comply with the safety requirements of the Occupational Safety and Health Administration and the Minerals Management Service. This restriction applies to tank cleaning and other operations which do not directly involve the safety of workers. The restriction is imposed because detergents disperse and emulsify oil, thereby increasing toxicity and making the detection of a discharge of oil more difficult.

4. Garbage

The discharge of garbage (See Part II.G.32) is prohibited .

[Exception] Comminuted food waste (able to pass through a screen with a mesh no larger

than 25 mm, approx. 1 inch) may be discharged when 12 nautical miles or more from land.

5. Area of Biological Concern

There shall be no discharge in Areas of Biological Concern, including marine sanctuaries.

The Flower Garden Banks has been determined to be a Marine Sanctuary and is within the geographical area covered under this permit.

Section D. Other Conditions

1. Samples of Wastes

If requested, the permittee shall provide EPA with a sample of any waste in a manner specified by the Agency.

2. Drilling Fluids Toxicity Test

The approved test method for permit compliance is identified as:

Drilling Fluids Toxicity Test at 40 CFR Part 435, Subpart A, Appendix 2.

3. PRODUCED WATER TOXICITY TESTING REQUIREMENTS (7-DAY CHRONIC NOEC MARINE LIMITS)

The approved test methods for permit compliance are identified in 40 CFR Part 136.

- a) The permittee shall utilize the Mysidopsis bahia (Mysid shrimp) chronic static renewal 7-day survival and growth test using Method 1007.0.
- b) The permittee shall utilize the Menidia beryllina (Inland Silverside minnow) chronic static renewal 7-day larval survival and growth test (Method 1006.0).
- c) The NOEC (No Observed Effect Concentration) is defined as the greatest effluent dilution which does not result in lethality that is statistically different from the control (0% effluent) at the 95% confidence level.
- d) If the effluent fails the survival endpoint at the critical dilution, the permittee shall be considered in violation of this permit limit. Also, when the testing frequency stated above is less than monthly and the effluent fails the survival endpoint at the critical dilution, the monitoring frequency for the affected species will increase to monthly until such time as compliance with the Lethal No Observed Effect Concentration (NOEC) effluent limitation is demonstrated for a period of three consecutive months, at that time the permittee may return to the testing frequency stated in Part I.B.4.b of this permit. During the period the permittee is out of compliance, test results shall be reported on the DMR for that reporting period.
- e) This permit may be reopened to require chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

- f) The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms", EPA/600/4-91/003, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of Part II.C.3 of this permit. The permittee shall submit full reports only upon the specific request of the Agency.
- g) In accordance with Part II.D.4 of this permit, the permittee shall report on the DMR for the reporting period the lowest Whole Effluent Lethality values determined for either species for the 30-Day Average Minimum and 7-Day Minimum under Parameter No. 22414, and the permittee shall report only the results of the valid toxicity test as follows:
1. MENIDIA BERYLLINA (INLAND SILVERSIDE MINNOW)
 - A) If the Inland Silverside minnow No Observed Effect Concentration (NOEC) for survival is less than the critical effluent dilution, enter a "1"; otherwise, enter a "0". Parameter No. TLP6B on the Discharge Monitoring Report.
 - B) Report the Inland Silverside minnow NOEC value for survival, Parameter No. TOP6B on the Discharge Monitoring Report.

- C) Report the Inland Silverside minnow NOEC value for growth, Parameter No. TPP6B on the Discharge Monitoring Report.

2. MYSIDOPSIS BAHIA (MYSID SHRIMP)

- A) If the Mysid shrimp NOEC for survival is less than the critical effluent dilution, enter a "1"; otherwise, enter a "0". Parameter No. TLP3E on the Discharge Monitoring Report.
- B) Report the Mysid shrimp NOEC value for survival, Parameter No. TOP3E on the Discharge Monitoring Report.
- C) Report the Mysid shrimp NOEC value for growth, Parameter No. TPP3E on the Discharge Monitoring Report.

4. CHEMICALLY TREATED SEAWATER AND FRESHWATER TOXICITY TESTING REQUIREMENTS (48-HOUR ACUTE NOEC MARINE LIMITS)

The approved test methods for permit compliance are identified in 40 CFR Part 136.

- a) The permittee shall utilize the Mysidopsis bahia (Mysid shrimp) acute static renewal

48-hour definitive toxicity test using EPA/600/4-90/027F.

- b) Menidia beryllina (Inland Silverside minnow) acute static renewal 48-hour definitive toxicity test using EPA/600/4-90/027F.

- c) The NOEC (No observable Effect Concentration) is defined as the greatest effluent dilution which does not result in lethality that is statistically different from the control (0% effluent) at the 95% confidence level.

- d) If the effluent fails the survival endpoint at the critical dilution, the permittee shall be considered in violation of this permit limit. Also, when the testing frequency stated above is less than monthly and the effluent fails the survival endpoint at the critical dilution, the monitoring frequency for the affected species will increase to monthly until such time as compliance with the Lethal No Observed Effect Concentration (NOEC) effluent limitation is demonstrated for a period of three consecutive months, at which time the permittee may return to the testing frequency stated in Part I.B.11.b of this permit. During the period the permittee is out of compliance, test results shall be reported on the DMR for that reporting period.

- e) This permit may be reopened to require chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

f) Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.
- ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for the Mysid shrimp survival test and the Inland Silverside minnow survival test.
- iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal effects are exhibited for the Mysid shrimp survival test and the Inland Silverside minnow survival test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

g) Statistical Interpretation

For the Mysid shrimp survival test and the Inland Silverside minnow survival test,

the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/600/4-90/027F or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 4.f above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item i below.

- h) The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms", EPA/600/4-90/027F, or the latest update thereof, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of Part II.C.3 of this permit. The permittee shall submit full reports only upon the specific request of the Agency.
- i) In accordance with Part II.D.4 of this permit, the permittee shall report on the DMR for the reporting period whether the lowest Whole Effluent Lethality values determined for either species passed the 30-Day Average Minimum and 48-Hour Minimum NOEC. In

addition, the permittee shall report on the DMR the lowest NOEC survival value of the two species.

5. OIL AND GREASE ALTERNATIVE TEST PROCEDURE: INTERIM LIMITED USE APPROVAL

Proposed Method 1664 (Federal Register, Vol. 61, No. 15, January 23, 1996, page 1730) may be used as an alternative test procedure for NPDES permit compliance monitoring purposes. This approval shall expire at the time of the publication in the Federal Register of the final rule governing the use of Method 1664. This approval includes all of the analytical options within Method 1664 provided the equivalency demonstration is performed and all performance specifications are met.

6. VISUAL SHEEN TEST

The visual sheen test is used to detect free oil by observing the surface of the receiving water for the presence of a sheen while discharging. The operator must conduct a visual sheen test only at times when a sheen could be observed. This restriction eliminates observations when atmospheric or surface conditions prohibit the observer from detecting a sheen (e.g., overcast skies, rough seas, etc.).

The observer must be positioned on the rig or platform, relative to both the discharge point and current flow at the time of discharge, such that the observer can detect a sheen should it surface down current from the discharge. For discharges that have been occurring for a least 15

minutes previously, observations may be made any time thereafter. For discharges of less than 15 minutes duration, observations must be made during both discharge and at 5 minutes after discharge has ceased.

7. STATIC SHEEN TEST

The approved test method for permit compliance is identified as:

Static Sheen Test at 40 CFR Part 435, Subpart A, Appendix 1.

PART II. STANDARD CONDITIONS FOR NPDES PERMITS

Section A. General Conditions

1. Introduction

In accordance with the provisions of 40 CFR Part 122.41, *et. seq.*, this permit incorporates by reference ALL conditions and requirements applicable to NPDES permits set forth in the Clean Water Act, as amended, (herein-after known as the "Act") as well as ALL applicable regulations.

2. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action or for requiring a

permittee to apply and obtain an individual NPDES permit.

3. Toxic Pollutants

- a. Notwithstanding Part II.A.4, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition.
- b. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Act for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

4. Permit Flexibility

This permit may be modified, revoked and reissued, or terminated for cause in accordance with 40 CFR 122.62-64. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

5. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

6. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

7. Criminal and Civil Liability

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the permit may subject the permittee to criminal enforcement pursuant to 18 U.S.C. section 1001.

8. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the Act.

9. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State Law or regulation under authority preserved by section 510 of the Act.

10. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Section B. Proper Operation and Maintenance

1. Need to Halt or Reduce not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been

necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

2. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

3. Proper Operation and Maintenance

- a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance

with the conditions of this permit.

- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

4. Bypass of Treatment Facilities

- a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.B.4.b and 4.c.

b. Notice

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall, within 24 hours, submit notice of an unanticipated bypass as required in Part II.D.7.

c. Prohibition of Bypass

(1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,

(c) The permittee submitted notices as required by Part II.B.4.b.

(2) The Director may allow an anticipated bypass after considering its adverse effects, if the Director determines that it will meet the three conditions listed at Part II.B.4.c(1).

5. Upset Conditions

a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for

noncompliance with such technology-based permit effluent limitations if the requirements of Part II.B.5.b. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

- b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;

- (2) The permitted facility was at the time being properly operated;

- (3) The permittee submitted notice of the upset as required by Part II.D.7; and,

- (4) The permittee complied with any remedial measures required by Part II.B.2.

- c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

Solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters. Any substance specifically listed within this permit may be discharged in accordance with specified conditions, terms, or limitations.

Section C. Monitoring and Records

1. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by the law to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit;
and

- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

2. Representative Sampling

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

3. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

The operator shall maintain records at development and production facilities for 3 years, wherever practicable and at a specific shore-based site whenever not practicable. The operator is responsible for maintaining records at exploratory facilities while they are discharging under the operators control and at a specific shore-based site for the remainder of the 3-year retention

period.

4. Record Contents

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) and time(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

5. Monitoring Procedures

- a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.
- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.
- c. An adequate analytical quality control program, including the analyses of sufficient

standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

6. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Section D. Reporting Requirements

1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b); or,

- (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements listed at Part II.D.10.a.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit is not transferable to any person except after notice to the Regional Administrator. The Regional Administrator may require modification or revocation and reissuance of the permit to change the name of the permittee and to incorporate such requirements as may be necessary under the Act.

4. Discharge Monitoring Reports and Other Reports

The operator of each lease block shall be responsible for submitting monitoring results for all facilities within each lease block. The monitoring results for the facilities (platform, drilling ship, or semisubmersible) within the particular lease block shall be summarized on the annual Discharge

Monitoring Report for that lease block.

Monitoring results obtained during the previous 12 months shall be summarized and reported on a Discharge Monitoring Report (DMR) form (EPA No. 3320-1).

If any category of waste (discharge) is not applicable for all facilities within the lease block, due to the type of operations (e.g., drilling, production) no reporting is required; however, "no discharge" must be recorded for those categories on the DMR. Operators may list a summary of all lease blocks where there is no activity in lieu of DMRs for those lease blocks. The summary must state each lease block name and outfall number and must include the monitoring period. All pages of the DMR, or summary of no activity lease blocks, must be signed and certified as required by Part II.D.11 of this permit and returned when due.

Additionally, the lease block number assigned by the Department of the Interior shall be listed on all Discharge Monitoring Reports.

5. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be

indicated on the DMR.

6. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified.

7. Twenty-Four Hour Reporting

- a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. Alternatively to oral reporting, the permittee may report by EMAIL at the following address:

R6GENPERMIT@epa.gov. A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain the following information:

- (1) A description of the noncompliance and its cause;
- (2) The period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and,

(3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. The following shall be included as information which must be reported within 24 hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

(2) Any upset which exceeds any effluent limitation in the permit; and,

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part II of the permit to be reported within 24 hours.

c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

8. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Parts II.D.4 and D.7 at the time monitoring reports are submitted. The reports shall contain the information listed at Part II.D.7.

9. Other Information

Where the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, he shall promptly submit such facts or information.

10. Signatory Requirements

All applications, reports, or information submitted to the Director shall be signed and certified.

a. All permit applications shall be signed as follows:

(1) For a corporation - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,

(b) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures

exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency - by either a principal executive officer or ranking elected official. For purposes of this election, a principal executive officer of a Federal agency includes:

(a) The chief executive officer of the agency, or

(b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

b. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and,

(3) The written authorization is submitted to the Director.

- c. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Availability of Reports

Except for applications, effluent data, permits, and other data specified in 40 CFR 122.7, any information submitted pursuant to this permit may be claimed as confidential by the submitter. If no claim is made at the time of submission, information may be made available to the public without further notice.

Section E. Penalties for Violations of Permit Conditions

1. Criminal

a. Negligent Violations

The Act provides that any person who negligently violates permit conditions implementing section 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

b. Knowing Violations

The Act provides that any person who knowingly violates permit conditions implementing sections 301, 302, 306, 307, 308, 318 or 405 of the Act is subject to a fine

of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

c. Knowing Endangerment

The Act provides that any person who knowingly violates permit conditions implementing sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 years, or both.

d. False Statements

The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both. (See section 309.c.4 of the Clean

Water Act)

2. Civil Penalties

The Act provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$27,500 per day for each violation.

3. Administrative Penalties

The Act provides that any person who violates a permit conditions implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

a. Class I Penalty

Not to exceed \$11,000 per violation nor shall the maximum amount exceed \$27,500.

b. Class II penalty

Not to exceed \$11,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$137,500.

Section F. Additional General Permit Conditions

1. When the Regional Administrator May Require Application for an Individual NPDES Permit.

The Regional Administrator may require any person authorized by this permit to apply for and obtain an individual NPDES permit when:

- (a) The discharge(s) is a significant contributor of pollution;
- (b) The discharger is not in compliance with the conditions of this permit;
- (c) A change has occurred in the availability of the demonstrated technology or practices for the control or abatement of pollutants applicable to the point sources;
- (d) Effluent limitations guidelines are promulgated for point sources covered by this permit;
- (e) A Water Quality Management Plan containing requirements applicable to such point source is approved;
- (f) The point source(s) covered by this permit no longer:
 - (1) Involve the same or substantially similar types of operations;

- (2) Discharge the same types of wastes;
- (3) Require the same effluent limitations or operating conditions;
- (4) Require the same or similar monitoring; and
- (5) In the opinion of the Regional Administrator, are more appropriately controlled under an individual permit than under a general permit.

- (g) The bioaccumulation monitoring results show concentrations of the listed pollutants in excess of levels safe for human consumption.

The Regional Administrator may require any operator authorized by this permit to apply for an individual NPDES permit only if the operator has been notified in writing that a permit application is required.

2. When an Individual NPDES Permit may be Requested

- (a) Any operator authorized by this permit may request to be excluded from the coverage of this general permit by applying for an individual permit.
- (b) When an individual NPDES permit is issued to an operator otherwise subject to this

general permit, the applicability of this permit to the owner or operator is automatically terminated on the effective date of that individual permit.

- (c) A source excluded from coverage under this general permit solely because it already has an individual permit may request that its individual permit be revoked, and that it be covered by this general permit. Upon revocation of the individual permit, this general permit shall apply to the source.

3. Permit Reopener Clause

If applicable new or revised effluent limitations guidelines or New Source Performance Standards covering the Offshore Subcategory of the Oil and Gas Extraction Point Source Category (40 CFR 435) are promulgated in accordance with sections 301(b), 304(b)(2), and 307(a)(2), and the new or revised effluent limitations guidelines or New Source Performance Standards are more stringent than any effluent limitations in this permit or control a pollutant not limited in this permit, the permit may, at the Director's discretion, be modified to conform to the new or revised effluent limitations guidelines.

Notwithstanding the above, if an offshore oil and gas extraction point source discharge facility is subject to the ten year protection period for new source performance standards under the Clean Water Act section 306(d), this reopener clause may not be used to modify the permit to conform to more stringent new source performance standards or technology based standards

developed under section 301(b)(2) during the ten year period specified in 40 CFR Part 122.29(d).

The Director may modify this permit upon meeting the conditions set forth in this reopener clause.

Section G. Definitions

All definitions contained in section 502 of the Act shall apply to this permit and are incorporated herein by references. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows:

1. "Act" means the Clean Water Act (33 U.S.C. 1251 et. seq.), as amended.
2. "Administrator" means the Administrator of the U.S. Environmental Protection Agency.
3. "Annual Average" means the average of all discharges sampled and/or measured during a calendar year in which daily discharges are sampled and/or measured, divided by the number of discharges sampled and/or measured during such year.
4. "Applicable effluent standards and limitations" means all state and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards or performance, toxic effluent standards and

prohibitions, and pretreatment standards.

5. "Applicable water quality standards" means all water quality standards to which a discharge is subject under the Act.
6. "Areas of Biological Concern" means a portion of the OCS identified by EPA, in consultation with the Department of Interior as containing potentially productive or unique biological communities or as being potentially sensitive to discharges associated with oil and gas activities.
7. "Blow-Out Preventer Control Fluid" means fluid used to actuate the hydraulic equipment on the blow-out preventer or subsea production wellhead assembly.
8. "Boiler Blowdown" means discharges from boilers necessary to minimize solids build-up in the boilers, including vents from boilers and other heating systems.
9. "Bulk Discharge" any discharge of a discrete volume or mass of effluent from a pit tank or similar container that occurs on a one-time, infrequent or irregular basis.
10. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

11. "Completion Fluids" means salt solutions, weighted brines, polymers and various additives used to prevent damage to the well bore during operations which prepare the drilled well for hydrocarbon production. These fluids move into the formation and return to the surface as a slug with the produced water. Drilling muds remaining in the wellbore during logging, casing, and cementing operations or during temporary abandonment of the well are not considered completion fluids and are regulated by drilling fluids requirements.
12. "Controlled Discharge Rates Areas" means zones adjacent to areas of biological concern.
13. "Daily Discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be arithmetic average (weighted by flow value) of all samples collected during that sampling day.

14. "Daily Average" (also known as monthly average) discharge limitations means the highest allowable average of daily discharge(s) over a calendar month, calculated as the sum of all daily discharge(s) measured during a calendar month divided by the number of daily discharge(s) measured during that month. When the permit establishes daily average concentration effluent limitations or conditions, the daily average concentration means the arithmetic average (weighted by flow) of all daily discharge(s) of concentration determined during the calendar month where C = daily concentration, F = daily flow, and n = number of daily samples; daily average discharge =

$$\frac{C_1F_1 + C_2F_2 + \dots + C_nF_n}{F_1 + F_2 + \dots + F_n}$$

15. "Daily Maximum" discharge limitations means the highest allowable "daily discharge" during the calendar month.
16. "Desalinization Unit Discharge" means wastewater associated with the process of creating freshwater from seawater.
17. "Deck Drainage" means any waste resulting from deck washings, spillage, rainwater, and runoff from gutters and drains including drip pans and work areas within facilities covered under this permit.

18. "Development Drilling" means the drilling of wells required to efficiently produce a hydrocarbon formation or formations.
19. "Development Facility" means any fixed or mobile structure that is engaged in the drilling of productive wells.
20. "Diatomaceous Earth Filter Media" means filter media used to filter seawater or other authorized completion fluids and subsequently washed from the filter.
21. "Diesel Oil" means the grade of distillate fuel oil, as specified in the American Society for Testing and Materials Standard Specification D975-81, that is typically used as the continuous phase in conventional oil-based drilling fluids.
22. "Director" means the U.S. Environmental Protection Agency Regional Administrator or an authorized representative.
23. "Domestic Waste" means material discharged from galleys, sinks, showers, safety showers, eye wash stations, hand washing stations, fish cleaning stations, and laundries.
24. "Drill Cuttings" means particles generated by drilling into the subsurface geological formations including cured cement carried to the surface with the drilling fluid.

25. "Drilling Fluids" means the circulating fluid (mud) used in the rotary drilling of wells to clean and condition the hole and to counterbalance formation pressure. A water-based drilling fluid is the conventional drilling mud in which water is the continuous phase and the suspending medium for solids, whether or not oil is present. An oil based drilling fluids has diesel oil, mineral oil, or some other oil as its continuous phase with water as the dispersed phase.
26. "End of well Sample" means the sample taken after the final log run is completed and prior to bulk discharge.
27. "Environmental Protection Agency" (EPA) means the U.S. Environmental Protection Agency.
28. "Excess Cement Slurry" means the excess mixed cement, including additives and wastes from equipment washdown, after a cementing operation.
29. "Exploratory Facility" means any fixed or mobile structure that is engaged in the drilling of wells to determine the nature of potential hydrocarbon reservoirs.
30. "Fecal Coliform Bacteria Sample" consists of one effluent grab portion collected during a 24-hour period at peak loads.

31. "Grab sample" means an individual sample collected in less than 15 minutes.
32. "Garbage" means all kinds of food waste, wastes generated in living areas on the facility, and operational waste, excluding fresh fish and parts thereof, generated during the normal operation of the facility and liable to be disposed of continuously or periodically, except dishwater, graywater, and those substances that are defined or listed in other Annexes to MARPOL 73/78
33. "Graywater" means drainage from dishwater, shower, laundry, bath, and washbasin drains and does not include drainage from toilets, urinals, hospitals, and cargo spaces.
34. "Inverse Emulsion Drilling Fluids" means an oil-based drilling fluid which also contains a large amount of water.
35. "Live bottom areas" means those areas which contain biological assemblages consisting of such sessile invertebrates as seas fans, sea whips, hydroids, anemones, ascidians sponges, bryozoans, seagrasses, or corals living upon and attached to naturally occurring hard or rocky formations with fishes and other fauna.
36. "Maintenance waste" means materials collected while maintaining and operating the facility, including, but not limited to, soot, machinery deposits, scraped paint, deck

sweepings, wiping wastes, and rags.

37. "Maximum Hourly Rate" means the greatest number of barrels of drilling fluids discharged within one hour, expressed as barrels per hour.
38. "Muds, Cuttings, and Cement at the Seafloor" means discharges that occur at the seafloor prior to installation of the marine riser and during marine riser disconnect, well abandonment and plugging operations.
39. "National Pollutant Discharge Elimination System" (NPDES) means the national program for issuing, modifying, revoking, and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under section 307, 318, 402, and 405 of the Act.
40. "New Source" means any facility or activity that meets the definition of "new source" under 40 CFR 122.2 and meets the criteria for determination of new sources under 40 CFR 122.29(b) applied consistently with all of the following definitions:

(a) The term "water area" as used in the term "site" in 40 CFR 122.29 and 122.2 shall mean the water area and ocean floor beneath any exploratory, development, or production facility where such facility is conducting its exploratory, development, or production activities.

(b) The term "significant site preparation work" as used in 40 CFR 122.29 shall mean the process of surveying, clearing, or preparing an area of the ocean floor for the purpose of constructing or placing a development or production facility on or over the site.

41. "No Activity Zones" means those areas identified by the Minerals Management Service (MMS) where no structures, drilling rigs, or pipelines will be allowed. Those zones are identified in lease stipulations that are applied to MMS oil and gas lease sales. Additional no activity areas may be identified by MMS during the life of this permit.
42. "Operational waste" means all cargo associated waste, maintenance waste, cargo residues, and ashes and clinkers from incinerators and coal burning boilers.
43. "Packer Fluid" means low solids fluids between the packer, production string and well casing. They are considered to be workover fluids.
44. "Priority Pollutants" means those chemicals or elements identified by EPA, pursuant to section 307 of the Clean Water Act and 40 CFR 401.15.
45. "Produced Sand" means slurried particles used in hydraulic fracturing, the accumulated formation sands, and scale particles generated during production.

Produced sand also includes desander discharge from produced water waste stream and blowdown of water phase from the produced water treating system.

46. "Produced Water" means the water (brine) brought up from the hydrocarbon-bearing strata during the extraction of oil and gas, and can include formation water, injection water, and any chemicals added downhole or during the oil/water separation process.
47. "Production Facility" means any fixed or mobile structure that is either engaged in well completion or used for active recovery of hydrocarbons from producing formations.
48. "Sanitary Waste" means human body waste discharged from toilets and urinals.
49. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
50. "Sheen" means a silvery or metallic sheen, gloss, or increased reflectivity, visual color or iridescence on the water surface.

51. "Source Water and Sand" means water from non-hydrocarbon bearing formations for the purpose of pressure maintenance or secondary recovery including the entrained solids.
52. "Spotting" means the process of adding a lubricant (spot) downhole to free stuck pipe.
53. Synthetic Drilling Fluid" means a drilling fluids which has synthetic material as its continuous phase with water as the dispersed phase.
54. "Territorial Seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles.
55. "Trace Amounts" means that if materials added downhole as well treatment, completion, or workover fluids do not contain priority pollutants then the discharge is assumed not to contain priority pollutants, except possibly in trace amounts.
56. "Treatment Chemicals" means biocides, corrosion inhibitors, or other chemicals which are used to treat seawater or freshwater to prevent corrosion or fouling of piping or equipment.

57. "Uncontaminated Ballast/Bilge Water" means seawater added or removed to maintain proper draft.
58. "Uncontaminated Freshwater" means freshwater which is discharged without the addition of chemicals; included are (1) discharges of excess freshwater that permit the continuous operation of fire control and utility lift pumps, (2) excess freshwater from pressure maintenance and secondary recovery projects, (3) water red during training and testing of personnel in fire protection, and (4) water used to pressure test new piping.
59. "Uncontaminated Seawater" means seawater which is returned to the sea without the addition of chemicals. Included are (1) discharges of excess seawater which permit the continuous operation of fire control and utility lift pumps (2) excess seawater from pressure maintenance and secondary recovery projects (3) water red during the training and testing of personnel in fire protection (4) seawater used to pressure test piping, and (5) once through noncontact cooling water which has not been treated with biocides.
60. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed

treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

61. "Well Treatment Fluids" mean any fluid used to restore or improve productivity by chemically or physically altering hydrocarbon-bearing strata after a well has been drilled. These fluids move into the formation and return to the surface as a slug with the produced water. Stimulation fluids include substances such as acids, solvents, and propping agents.
62. "Workover Fluids" mean salt solutions, weighted brines, polymers, and other specialty additives used in a producing well to allow safe repair and maintenance or abandonment procedures. High solids drilling fluids used during workover operations are not considered workover fluids by definition and therefore must meet drilling fluid effluent limitations before discharge may occur. Packer fluids, low solids fluids between the packer, production string and well casing, are considered to be workover fluids and must meet only the effluent requirements imposed on workover fluids.
63. The term "MGD" shall mean million gallons per day.
64. The term "mg/l" shall mean milligrams per liter or parts per million (ppm).
65. The term "ug/l" shall mean micrograms per liter or parts per billion (ppb).

Appendix A

Table 1: Produced Water Critical Dilutions

Table 1-A: Critical Dilution (Percent Effluent) for Discharges with a Depth Difference Between the Discharge Pipe and the Sea Floor of Greater than 0 Meters to 4 Meters

Discharge Rate	Pipe Diameter (inches)					
(bbl/day)	>0" to 5"	>5" to 7"	>7" to 9"	>9" to 11"	>11" to 15"	>15"
0 to 500	0.05	0.05	0.05	0.05	0.05	0.05
501 to 1000	0.12	0.12	0.12	0.12	0.12	0.12
1001 to 2000	0.29	0.29	0.29	0.29	0.29	0.29
2001 to 3000	0.49	0.48	0.48	0.48	0.48	0.49
3001 to 4000	0.66	0.64	0.64	0.64	0.64	0.64
4001 to 5000	0.9	0.87	0.85	0.85	0.86	0.87
5001 to 6000	1.13	1.11	1.07	1.07	1.08	1.09
6001 to 7000	1.36	1.33	1.30	1.28	1.28	1.30
7001 to 8000	1.57	1.55	1.51	1.47	1.48	1.50
8001 to 9000	1.80	1.78	1.74	1.68	1.68	1.70
9001 to 10,000	2.02	2.00	1.95	1.89	1.88	1.90
10,001 to 15,000	3.09	3.17	3.08	3.02	2.92	2.88
15,001 to 20,000	3.90	4.26	4.15	4.07	3.95	3.77
20,001 to 25,000	4.60	5.26	5.25	5.10	5.00	4.60
25,001 to 35,000	5.68	6.92	7.28	7.00	6.86	6.30
35,001 to 50,000	6.83	8.80	9.67	9.80	9.35	8.74
50,001 to 75,000	8.23	11.1	12.8	13.9	14.2	13.1

Table 1-B: Critical Dilution (Percent Effluent) for Discharges with a Depth Difference Between the Discharge Pipe and the Sea Floor of Greater than 4 Meters to 6 Meters

Discharge Rate	Pipe Diameter (inches)					
(bbl/day)	>0" to 5"	>5" to 7"	>7" to 9"	>9" to 11"	>11" to 15"	>15"
0 to 500	0.05	0.05	0.05	0.05	0.05	0.05
501 to 1000	0.104	0.105	0.105	0.105	0.105	0.106
1001 to 2000	0.20	0.20	0.20	0.20	0.20	0.20
2001 to 3000	0.30	0.30	0.30	0.30	0.30	0.30
3001 to 4000	0.40	0.38	0.38	0.38	0.39	0.39
4001 to 5000	0.59	0.58	0.56	0.56	0.57	0.58
5001 to 6000	0.74	0.73	0.71	0.71	0.71	0.72
6001 to 7000	0.88	0.87	0.85	0.84	0.84	0.85
7001 to 8000	1.02	1.00	0.98	0.96	0.96	0.97
8001 to 9000	1.15	1.14	1.12	1.09	1.09	1.10
9001 to 10,000	1.28	1.28	1.25	1.22	1.21	1.22
10,001 to 15,000	1.92	1.97	1.93	1.90	1.84	1.82
15,001 to 20,000	2.46	2.57	2.54	2.51	2.45	2.36
20,001 to 25,000	2.92	3.14	3.14	3.08	3.03	2.85
25,001 to 35,000	3.60	4.15	4.26	4.18	4.13	3.85
35,001 to 50,000	4.32	5.38	5.85	5.83	5.68	5.43
50,001 to 75,000	5.17	6.94	7.88	8.36	8.41	7.94

Table 1-C: Critical Dilution (Percent Effluent) for Discharges with a Depth Difference Between the Discharge Pipe and the Sea Floor of Greater than 6 Meters to 9 Meters

Discharge Rate	Pipe Diameter (inches)					
(bbl/day)	>0" to 5"	>5" to 7"	>7" to 9"	>9" to 11"	>11" to 15"	>15"
0 to 500	0.05	0.05	0.05	0.05	0.05	0.05
501 to 1000	0.104	0.105	0.105	0.105	0.105	0.105
1001 to 2000	0.20	0.20	0.20	0.20	0.20	0.20
2001 to 3000	0.27	0.27	0.27	0.27	0.27	0.27
3001 to 4000	0.32	0.31	0.31	0.31	0.32	0.32
4001 to 5000	0.38	0.37	0.36	0.36	0.37	0.37
5001 to 6000	0.50	0.49	0.48	0.48	0.48	0.49
6001 to 7000	0.60	0.59	0.57	0.57	0.57	0.58
7001 to 8000	0.69	0.68	0.66	0.65	0.65	0.66
8001 to 9000	0.78	0.77	0.76	0.74	0.74	0.75
9001 to 10,000	0.86	0.86	0.85	0.83	0.82	0.83
10,001 to 15,000	1.29	1.32	1.30	1.28	1.25	1.24
15,001 to 20,000	1.64	1.72	1.71	1.69	1.65	1.60
20,001 to 25,000	1.97	2.08	2.09	2.06	2.04	1.93
25,001 to 35,000	2.50	2.74	2.81	2.78	2.75	2.6
35,001 to 50,000	3.05	3.60	3.80	3.82	3.76	3.62
50,001 to 75,000	3.70	4.83	5.40	5.62	5.60	5.40

Table 1-D: Critical Dilution (Percent Effluent) for Discharges with a Depth Difference Between the Discharge Pipe and the Sea Floor of Greater than 9 Meters to 12 Meters

Discharge Rate (bbl/day)	Pipe Diameter (inches)					
	>0" to 5"	>5" to 7"	>7" to 9"	>9" to 11"	>11" to 15"	>15"
0 to 500	0.05	0.05	0.05	0.05	0.05	0.05
501 to 1000	0.104	0.105	0.105	0.105	0.105	0.106
1001 to 2000	0.20	0.20	0.20	0.20	0.20	0.20
2001 to 3000	0.27	0.27	0.27	0.27	0.27	0.27
3001 to 4000	0.32	0.31	0.31	0.31	0.32	0.32
4001 to 5000	0.38	0.37	0.36	0.36	0.37	0.37
5001 to 6000	0.50	0.49	0.36	0.36	0.37	0.37
6001 to 7000	0.55	0.54	0.53	0.52	0.52	0.53
7001 to 8000	0.59	0.59	0.58	0.56	0.57	0.57
8001 to 9000	0.64	0.63	0.62	0.60	0.61	0.61
9001 to 10,000	0.67	0.67	0.66	0.64	0.64	0.65
10,001 to 15,000	0.82	0.84	0.83	0.82	0.80	0.80
15,001 to 20,000	1.00	1.05	1.04	1.03	1.02	1.00
20,001 to 25,000	1.20	1.27	1.28	1.26	1.25	1.20
25,001 to 35,000	1.57	1.67	1.72	1.70	1.69	1.62
35,001 to 50,000	2.00	2.22	2.31	2.33	2.31	2.24
50,001 to 75,000	2.50	3.10	3.37	3.47	3.50	3.43

Table 1-E: Critical Dilution (Percent Effluent) for Lower Volume Discharges with a Depth Difference Between the Discharge Pipe and the Sea Floor of Greater than 12 Meters

Discharge Rate	Pipe Diameter (inches)					
(bbl/day)	>0" to 5"	>5" to 7"	>7" to 9"	>9" to 11"	>11" to 15"	>15"
>0 to 500	0.05	0.05	0.05	0.05	0.05	0.05
501 to 1000	0.104	0.105	0.105	0.105	0.105	0.106
1001 to 2000	0.20	0.20	0.20	0.20	0.20	0.20
2001 to 3000	0.27	0.27	0.27	0.27	0.27	0.27
3001 to 4000	0.32	0.31	0.31	0.31	0.32	0.32
4001 to 5000	0.38	0.37	0.36	0.36	0.37	0.37
5001 to 6000	0.50	0.49	0.48	0.48	0.48	0.49
6001 to 7000	0.55	0.54	0.53	0.52	0.52	0.53
7001 to 8000	0.59	0.59	0.58	0.56	0.57	0.57

Table 1-F: Critical Dilution (Percent Effluent) for Larger Volume Discharges with a Depth Difference Between the Discharge Pipe and the Sea Floor of Greater than 12 Meters

Discharge Rate	Pipe Diameter (inches)					
(bbl/day)	>0" to 5"	>5" to 7"	>7" to 9"	>9" to 11"	>11" to 15"	>15"
Depth Difference Greater than 12 Meters to 14 Meters						
8001 to 9,000	0.64	0.63	0.62	0.60	0.61	0.61
9001 to 10,000	0.67	0.67	0.66	0.64	0.64	0.65
10,001 to 15,000	0.82	0.84	0.83	0.82	0.80	0.80
15,001 to 20,000	0.92	0.96	0.96	0.95	0.93	0.91
20,001 to 25,000	1.00	1.06	1.06	1.05	1.04	1.00
25,001 to 35,000	1.13	1.20	1.23	1.22	1.22	1.17
35,001 to 50,000	1.40	1.51	1.57	1.58	1.57	1.53
50,001 to 75,000	1.83	2.15	2.27	2.34	2.37	2.33

Depth Difference Greater than 14 Meters to 16 Meters						
8001 to 9,000	0.64	0.63	0.62	0.60	0.61	0.61
9001 to 10,000	0.67	0.67	0.66	0.64	0.64	0.65
10,001 to 15,000	0.82	0.84	0.83	0.82	0.80	0.80
15,001 to 20,000	0.92	0.96	0.96	0.95	0.93	0.91
20,001 to 25,000	1.00	1.06	1.06	1.05	1.04	1.00
25,001 to 35,000	1.13	1.20	1.23	1.22	1.22	1.17
35,001 to 50,000	1.28	1.37	1.43	1.44	1.43	1.39
50,001 to 75,000	1.54	1.74	1.82	1.88	1.90	1.88
Depth Difference Greater than 16 Meters to 19 meters						
8001 to 9000	0.64	0.63	0.62	0.60	0.61	0.61
9001 to 10,000	0.67	0.67	0.66	0.64	0.64	0.65
10,001 to 15,000	0.82	0.84	0.83	0.82	0.80	0.80
15,001 to 20,000	0.92	0.96	0.96	0.95	0.93	0.91
20,001 to 25,000	1.00	1.06	1.06	1.05	1.04	1.00
25,001 to 35,000	1.13	1.20	1.23	1.22	1.22	1.17
35,001 to 50,000	1.28	1.37	1.43	1.44	1.43	1.39
50,001 to 75,000	1.30	1.44	1.51	1.56	1.57	1.55
Depth Difference Greater than 19 Meters						
8001 to 9000	0.64	0.63	0.62	0.60	0.61	0.61
9001 to 10,000	0.67	0.67	0.66	0.64	0.64	0.65
10,001 to 15,000	0.82	0.84	0.83	0.82	0.80	0.80
15,001 to 20,000	0.92	0.96	0.96	0.95	0.93	0.91
20,001 to 25,000	1.00	1.06	1.06	1.05	1.04	1.00
25,001 to 35,000	1.13	1.20	1.23	1.22	1.22	1.17
35,001 to 50,000	1.28	1.37	1.43	1.44	1.43	1.39
50,001 to 75,000	1.28	1.42	1.49	1.53	1.54	1.53

Table 1-G: Minimum Vertical Port Separation Distance to Avoid Interference

<u>Port Flow Rate (bbl/day)</u>	<u>Minimum Separation Distance (m)</u>
0 - 500	3.7
501 - 1000	4.5
1001 - 2000	5.4
2001 - 5000	6.4
5001 - 7000	6.6
7001 - 10000	6.6

Table 2-A: Critical Dilutions (Percent Effluent) for Toxicity Limitations for Seawater to which treatment chemicals have been added

Depth Difference (Meters)	Discharge Rate (bbl/day)	Pipe Diameter			
		>0" to 2"	>2" to 4"	>4" to 6"	>6"
All	0 to 1,000	12	24.7	24.5	24.6
	>1,000 to 10,000	11.2	12.4	12.2	14
	> 10,000	9.6	24	23	20

Table 2-B: Critical Dilutions (Percent Effluent) for Toxicity Limitations for freshwater to which treatment Chemicals have been Added

Depth Difference (Meters)	Discharge Rate (bbl/day)	Pipe Diameter			
		>0" to 2"	>2" to 4"	>4" to 6"	>6"
All	0 to 1,000	1.1	1.2	2.9	2.9
	>1,000 to 10,000	19	39	28	24
	>10,000	13	63	41	74

Table 3. Effluent Limitations, Prohibitions and Monitoring Requirements

Discharge	Regulated & Monitored Discharged Parameter	Discharge Limitation/ Prohibition	Monitoring Requirement		
			Measurement Frequency	Sample Type/Method	Recorded Value(s)
Drilling Fluid	Free Oil.....	No free oil.....	Once week(*1).....	Static sheen	Num. Of days sheen observed
	Toxicity(*2) 96-hr LC50	30,000 ppm daily min 30,000 ppm monthly avg min	Once/month.....	Grab.....	96-hr LC50
			Once/end of well(*3)	Grab.....	96-hr LC50
			Once/month.....	Grab.....	96-hr LC50
		
	Discharge Rate.....	1,000 barrels/hour.....	Once/hour(*1).....	Estimate.....	Max. hourly rate
			.	..	Max. hourly rate
	Discharge Rate for cntrld rate areas	(*4).....	Once/hour(*1).....	Measure.....	Max. hourly rate
			.	..	Max. hourly rate
	Mercury and cadmium	No disch. of drilling fluids to which barite has been added, if such barite contains mercury in excess of 1.0 mg/kg or cadmium in excess of 3.0 mg/kg (dry weight)	Once prior to drilling each well (*6)	Absorption Spectro-photometry	mg mercury/kg barite mg cadmium/kg barite
	Oil Based or Inverse Emulsion Drilling Fluids	No discharge			
	Oil Contaminated.... Drilling Fluids	No discharge			
	Diesel Oil.....	No discharge of drilling fluids to which diesel oil has been added			
	Mineral Oil.....	Mineral oil may be used only as a carrier fluid, lubricity			

additive, or pill

Drilling Cuttings.	Free oil.....	No free oil.....	Once/week(*1)....	Static sheen.....	Number of days sheen observed
	Toxicity(*2) 96-hr LC50	No discharge of cuttings generated using drilling fluids which exhibit a toxicity of less than 30,000 ppm daily min. or 30,000 ppm monthly avg. min.			

Table 3. (Continued)

Discharge	Regulated & Monitored Discharged Parameter	Discharge Limitation/ Prohibition	Monitoring Requirement		
			Measurement Frequency	Sample Type/Method	Recorded Value(s)
Drill Cuttings... (Continued)	Mercury and cadmium	No discharge if generated using drilling fluids to which barite has been added which contains mercury in excess of 1.0 mg/kg or cadmium in excess of 3.0 mg/kg (dry weight)			
	Cuttings generated using Oil Based or Inverse Emulsion Drilling Fluids	No discharge			
	Cuttings generated using Oil Contaminated Drilling Fluids	No discharge			
	Cuttings generated using drilling fluids to which Diesel Oil has been added	No discharge			
	Cuttings generated using drilling fluids to which Mineral Oil has been added	Mineral oil may be used only as a carrier fluid, lubricity additive, or pill			
Deck Drainage....	Free Oil.....	No free oil.....	Once/day(*7).....	Visual sheen.....	Number of days sheen observed

Produced Water...	Oil and grease.....	42 mg/l daily max., 29 mg/l monthly avg.	Once/month (19).....	Grab(*8).....	Daily max., monthly average
	Toxicity.....	7-day min NOEC(*9) and mthly avg min NOEC(*9) Monitor.....	Rate Dependent(*16)	Grab.....	Lowest NOEC for either species
	Free Oil.....	..	Once/day (*7, *17)	Visual sheen.....	Number of days sheen observed
	Flow (MGD).....	Monitor.....	Once/month.....	Estimate.....	Monthly Average
Produced Sand...	No Discharge				
Well treatment fluids, completion fluids, and workover fluids (includes packer fluids) (*10)	Free oil.....	No free oil.....	Once/day(*1).....	Static sheen.....	Number of days sheen observed
	Oil & Grease.....	42 mg/l dly max., 29 mg/l mthly avg.	Once/month.....	Grab(*8).....	Daily max., monthly average

Table 3. (Continued)

Discharge	Regulated & Monitored Discharged Parameter	Discharge Limitation/Prohibition	Monitoring Requirement		
			Measurement Frequency	Sample Type/Method	Recorded Value(s)
Sanitary waste(*12) continuously manned by 10 or more persons	Residual chlorine(*13)...	1 mg/l (minimum).....	Once/month..	Grab.....	Concentration
	Solids.....	No Floating Solids...	Once/day....	Observation(*15)...	Number of days solids observed
Sanitary waste(*12) continuously manned by 9 or fewer persons or intermittently by any number	Solids.....	No floating solids...	Once/day....	Observation(*15)...	Number of days solids observed
Domestic waste(*14)	Solids.....	No floating solids or foam	Once/day....	Observation(*15)...	Number of days observed
Miscellaneous discharges: Desalinization unit discharge;	Free oil.....	No free oil.....	Once/week... (*11)	Visual sheen.....	Number of days sheen observed

blowout pre-venter fluid;
 uncontaminated ballast water;
 uncontaminated bilge water; un-
 contaminated freshwater; mud,
 cuttings and cement at seafloor;
 uncontaminated seawater; boiler
 blow- down; source water and
 sand; diatomaceous earth filter
 media; excess cement slurry

Miscellaneous discharges of seawater and freshwater to which treatment chemicals have been added: excess seawater which permits the continuous operation of fire control and utility lift pumps, excess seawater from pressure maint. and secondary recovery prjcts, water released during training of personnel in fire protection, seawater used to pressure test new piping and new pipelines, ballast water, once-through non-contact cooling water, desalinization unit	Treatment chemicals.....	Most stringent of: EPA label registration, maximum manufacturers recommended dose, or 500 mg/l.			
	Free oil.....	No free oil.....	1/week.....	Visual Sheen.....	Number of days sheen observed
	Toxicity.....	48-hour average min. NOEC and monthly avg minimum NOEC (*5)	Rate Dependent (*18)	Grab.....	Lowest NOEC observed for either of the two species

Footnotes

- *1 When discharging.
- *2 Suspended particulate phase (SPP) with *Mysidopsis bahia* following approved test method. The sample shall be taken beneath the shale shaker; or if there are no returns across the shaker then the sample must be taken from a location that is characteristic of the overall mud system to be discharged.
- *3 Sample shall be taken after the final log run is completed and prior to bulk discharge.
- *4 See Part I. B. 1. b of this permit.
- *5 See Appendix A, Table 2 of this permit
- *6 Analyses shall be conducted on each new stock of barite used.
- *7 When discharging and facility is manned. Monitoring shall be accomplished during times when observation of a visual sheen on the surface of the receiving water is possible in the vicinity of the discharge.

- *8 May be based on the arithmetic average of four grab sample results in a 24 hr. period.
- *9 See Appendix A, Table 1 of this permit.
- *10 No discharge of priority pollutants except in trace amounts. Information on the specific chemical composition shall be recorded but not reported unless requested by EPA.
- *11 When discharging for muds, cuttings, and cement at the seafloor and blowout preventer fluid. All other miscellaneous discharges: when discharging, discharge is authorized only during times when visual sheen observation is possible, unless the static sheen method is used. Uncontaminated seawater uncontaminated freshwater, source water and source sand, uncontaminated bilge water, and uncontaminated ballast water from platforms on automatic purge systems may be discharged without monitoring from platforms which are not manned.
- *12 Any facility which properly operates and maintains a marine sanitation device (MSD) that complies with pollution control standards and regulations under section 312 of the Act shall be deemed to be in compliance with permit limitations for sanitary waste. The MSD shall be tested yearly for proper operation, and test results maintained at the facility.
- *13 Hach method CN-66 DPD approved. Minimum of 1 mg/l and maintained as close to this concentration as possible.
- *14 The discharge of food waste is prohibited within 12 nautical miles from nearest land. Comminuted food waste able to pass through a 25 mm mesh screen (approximately 1 inch) may be discharged more than 12 nautical miles from nearest land.
- *15 Monitoring shall be accomplished during daylight by visual observation of the surface of the receiving water in the vicinity of sanitary and domestic waste outfalls. Observations shall be made following either the morning or midday meals at a time of maximum estimated discharge.
- *16 Once/year for discharges from 0 bbl/day to 4599 bbl/day, once/calender quarter for discharges of 4,600 bbl/day and greater.
- *17 See Part I. B. 4. b. of this permit.
- *18 See Part I. B. 11. b of this permit.